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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,604	09/19/2001	Yukio Nakamura	NPR-082	6933

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EXAMINER	
MOHAMED, ABDEL A	
ART UNIT	**PAPER NUMBER**
1653	

DATE MAILED: 04/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/889,604	NAKAMURA ET AL.	
	Examiner	Art Unit	
	Abdel A. Mohamed	1653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 23 December 2003.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-9 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-9 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

ACKNOWLEDGMENT OF AMENDMENT, REMARKS AND THE STATUS OF THE CLAIMS

1. The amendment and remarks filed 12/23/03 are acknowledged, entered and considered. In view of Applicant's request, claims 1, 6 and 7 have been amended and claims 8 and 9 have been added. Thus, claims 1-9 are now pending in the application. The objection to the trademarks is withdrawn in view of Applicants remarks filed 12/23/03. However, in regard to the rejections under 35 U.S.C. 102(b) and 35 U.S.C. 103(a) over the prior art of record; Applicant's arguments and the amendment submitted therewith have been considered but unpersuasive as discussed below in the new ground of rejections necessitated by Applicant's amendment. It is noted that Applicant has amended claims 1 and 6 to recite that the albumin preparation claimed therein is in a form suitable for administration to a patient for treatment of liver diseases and new claims 8 and 9 have been added and recite that the albumin preparation of claims 1 and 6, respectively, is in the form of a sterilized aqueous solution. Thus, the rejection under U.S.C. 102(b) as being anticipated by EPA 0 683 233 for claims 1-3 and 7 has been modified to include newly submitted claim 8 and exclude claim 7 which has been changed from composition claim to method claim. This is not a new rejection since Applicant has received the 102(b) rejection over the same reference previously. Further, Applicant has amended claim 7 by changing the claim from composition to a method claim and because of the amendment, a new ground of rejection is necessitated (i.e., withdrawing the 102(b) rejection of claim 7). Thus, this does not preclude the

Examiner from making this Office action Final and the Examiner will respond to Applicant's arguments as they apply to the rejection set forth.

CLAIMS REJECTION-35 U.S.C. § 102(b)

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and newly submitted claim 8 are rejected under 35 U.S.C. 102(b) as being anticipated by EPA 0 683 233.

The reference of EPA 0 683 233 discloses process for producing recombinant human albumin and an albumin formulations thereof, wherein the serum albumin comprises a plurality of amino acids containing branched amino acids and water, wherein the amino acid content of the medium or preparation may range, for example from about 0.08 to 20 w/v %, preferably from about 0.1 to 1.0 w/v % which overlaps with the ranges claimed in claims 2 and 3, and as such, reads on the limitations of claims 1-3 (See e.g., pages 2 and 5). With respect to amended claim 1 and newly submitted claim 8, the reference does not disclose the intended use of albumin preparation for treatment of liver diseases, wherein the preparation is in a form of a sterilized aqueous solution; although, on page 2, lines 9-10, the reference states that HSA is a main component of plasma proteins and is used in pharmaceutical preparations for treatment of massive hemorrhage, shock, burn injury, hyperproteinemia, fetal erythroblastosis and the like. Nevertheless, a statement of usefulness or contemplated use of a claimed compound or composition in a claim is usually given little weight in distinguishing over the prior art. *In*

re Maeder et al. (CCPA 1964) 337 F2d 875, 143 USPQ 248; *In re Riden et al.* (CCPA 1963) 318 F2d 761, 138 USPQ 112; *In re Sinex* (CCPA 1962) 309 F2d 488, 135 USPQ 302. Further, it is well established that the intended use of a compound (e.g., a polypeptide or a protein or a glycoprotein) does not impart patentability to the compound. *In re Spada,* 911 F.2d 705, 15 USPQ2d 1655 (Fed. Cir. 1990) (The discovery of a new property or use of a previously known composition, even when that property and use are unobvious from the prior art, can not impart patentability to claims to the known composition); *In re Pearson*, 494 F.2d 1399, 1403, 181 USPQ 641, 644 (CCPA 1974) (intended use of an old composition does not render composition claims patentable); *In re Zierden*, 411 F.2d 1325, 1328, 162 USPQ 102, 104 (CCPA 1969). Thus, in the absence of evidence to the contrary or specific structural limitations, the claimed composition/product disclosed by the reference anticipates claims 1-3, and 8 as drafted.

Applicant's arguments in the response of page 8, last paragraph, filed 12/23/03 is unpersuasive for the reasons in the above stated rejection. Applicant has argued that a culture medium as disclosed in EP '233 is not a preparation in a form suitable for administration to a patient and EP '233 does not disclose or suggest the use of the culture medium disclosed therein for the treatment of liver diseases is unpersuasive. Contrary to Applicant's arguments, the instantly claimed invention as currently drafted is directed to a composition comprising the same components as listed in EP '233 patent (i.e., namely, albumin, a plurality of amino acids containing branched amino acids and water with the concentrations of albumin and amino acids which overlap with the claimed concentrations). Thus, regardless of its intended use, the instantly claimed composition and the EP '233 patent composition are substantially the same for the

reasons discussed above, and as such, the intended use of treating liver diseases in a composition claims is given little weight in distinguishing over the prior art. Further, with respect to Applicant's assertion that a culture medium as disclosed in EP '233 is not a preparation in a form suitable for administration to a patient and EP '233 does not disclose or suggest the use of the culture medium disclosed therein for the treatment of liver diseases is noted. However, to the extent that an albumin preparation is in a physiological buffer it is considered to be a pharmaceutical composition, and a pharmaceutical composition to be applicable, it has to be in a sterilized formulation. Nevertheless, on page 2, lines 9-10, the reference states that HSA is a main component of plasma proteins and is used in pharmaceutical preparations for treatment of massive hemorrhage, shock, burn injury, hyperproteinemia, fetal erythroblastosis and the like includes liver diseases. Thus, in view of the above, Applicant's assertion is unpersuasive for the claimed composition as currently drafted.

CLAIMS REJECTION-35 U.S.C. § 103(a)

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-7 and newly submitted claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over EPA 0 683 233 taken with WO 88/01861 or Ohashi et al., (U.S. Patent No. 4,499,076).

The reference of EPA 0 683 233 discloses similarly as the instantly claimed invention a process for producing recombinant human albumin and an albumin formulations thereof, wherein the serum albumin comprises a plurality of amino acids containing branched amino acids and water, wherein the amino acid content of the medium or preparation may range, for example from about 0.08 to 20 w/v %, preferably from about 0.1 to 1.0 w/v % which overlaps with the ranges claimed in claims 2 and 3, and as such, reads on the limitations of claims 1-3 (See e.g., pages 2 and 5).

The reference of EPA 0 683 233 differs from claims 1-9 in not teaching a composition having branched amino acid which is equal to or more than 30 w/w % on the basis of a content of total amino acids and the plurality of amino acids having the composition as recited in claim 6 and wherein the preparation is in the form of sterilized aqueous solution and to a method of treating liver diseases by administering the albumin preparation thereof as claimed in claim 7. However, the primary reference of EPA 0 683 233 in Example I (Tables 2-4) disclosed in yield percentages but not in content ratios as claimed in claim 6. Nevertheless, Example II shows conversion of yield percentages of Histidine into concentration percentages (w/v). Based on this, it would have been obvious to one of ordinary skill in the art to convert any amino acid of interest to content ratio percentages (w/w %) as claimed in claim 6. Further, the

secondary reference of WO 88/01861 teaches the use of nutritional composition comprising a high protein source such as lactoalbumin, wherein the content of branched amino acid comprises approximately 45 to 55% w/w of the total protein and amino acid content, and as such, meets the limitations of claims 4-6 which require the content of the branched amino acids to be equal or more than 30 w/w% on the basis of a content of total amino acids (see e.g., page 4, lines 7-12; page 5, lies 10-15; and page 8, lines 3-10). Similarly, the reference of Ohashi et al., teaches the use of elemental diets for liver diseases which contains nutritional compositions of various amino acids in molar percentages, wherein the amino acid content in the composition is 10-20 % by weight or so. Thus, the secondary reference of Ohashi et al. clearly discloses mole percentages of various amino acids composition in a form of diet formulation wherein the formulation comprises an amino acid content from about 10% to 20% by weight (See e.g., col. 2 and claims 1 and 2) as directed to claims 4-6. Therefore, in view of the above and in view of the combined teachings of the prior art, one of ordinary skill in the art would easily adjust the content ratio (w/w %) of any amino acid of interest according to the required percentages.

With respect to amended claim 1 and newly submitted claims 8 and 9, the reference does not disclose the intended use of albumin preparation for treatment of liver diseases, wherein the preparation is in a form of a sterilized aqueous solution; although, on page 2, lines 9-10, the primary reference of EPA 0,683,233 states that HSA is a main component of plasma proteins and is used in pharmaceutical preparations for treatment of massive hemorrhage, shock, burn injury, hyperproteinemia, fetal erythroblastosis and the like. Nevertheless, a statement of usefulness or contemplated use of a claimed compound or composition in a claim is usually given little weight in distinguishing over the prior art. *In re Maeder et al.* (CCPA

1964) 337 F2d 875, 143 USPQ 248; *In re Riden et al.* (CCPA 1963) 318 F2d 761, 138 USPQ 112; *In re Sinex* (CCPA 1962) 309 F2d 488, 135 USPQ 302. Further, it is well established that the intended use of a compound (e.g., a polypeptide or a protein or a glycoprotein) does not impart patentability to the compound. *In re Spada,* 911 F.2d 705, 15 USPQ2d 1655 (Fed. Cir. 1990) (The discovery of a new property or use of a previously known composition, even when that property and use are unobvious from the prior art, can not impart patentability to claims to the known composition); *In re Pearson,* 494 F.2d 1399, 1403, 181 USPQ 641, 644 (CCPA 1974) (intended use of an old composition does not render composition claims patentable); *In re Zierden*, 411 F.2d 1325, 1328, 162 USPQ 102, 104 (CCPA 1969).

In regard to claim 7, the claim as amended is directed to a method of treating liver diseases comprising administering an albumin preparation as claimed in claim 1 to a patient in need of such treatment. However, the addition of albumin into an amino acid preparation containing branched amino acids of the primary reference would improve in restoring the concentration of albumin to a normal status because the secondary reference of Ohashi et al. has shown that the administration of nutritional composition containing various branched amino acids, carbohydrates, fats, vitamins and minerals would result in treating liver diseases (See e.g., col. 1, lines 40 to col. 2, lines 30). Thus, given the teachings of the secondary reference of Ohashi et al., one of ordinary skill in the art at the time the invention was made would have been motivated to administer the albumin preparation of the primary reference with the nutritional composition containing the branched amino acids in the amount (concentration) claimed for the intended purpose of reducing the imbalance of amino acids without being consumed for synthesis of a protein such as albumin in the liver.

Therefore, the combined teachings of the prior art makes obvious the albumin preparation containing amino acids comprising serum albumin, a plurality of amino acids containing branched amino acids and water, wherein the content of albumin is 0.01 to 1.0 w/v%, a content of plurality of amino acids containing branched amino acids is 5 to 10 w/v%, a content of the branched amino acids is equal to or more than 30 w/w% on the basis of the content of total amino acids and a Fischer ratio (molar ratio) which is equal to or more than 20, and the albumin preparation is useful for treatment of liver diseases, wherein the preparation is in a form of sterilized aqueous solution and to a method of treating liver diseases by administering the albumin preparation thereof, absent of sufficient factual evidence or unexpected results to the contrary.

In regard to Applicant's arguments that the secondary references are unrelated to conditions for culturing HSA and do not provide a motive for using a plurality of amino acids containing a specified amount of branched amino acids in the culture medium disclosed in the primary reference of EP '233 or for otherwise modifying the culture medium of EP '233 is unpersuasive. Contrary to Applicant's arguments, the primary reference of EP '233 in Example II shows conversion of yield percentages of Histidine into concentration percentages (w/v). Based on this, it would have been obvious to one of ordinary skill in the art to convert any amino acid of interest to content ratio percentages (w/w %) as claimed in claim 6. Further, the secondary reference of WO 88/01861 teaches the use of nutritional composition comprising a high protein source such as lactoalbumin, wherein the content of branched amino acid comprises approximately 45 to 55% w/w of the total protein and amino acid content, and as such, meets the limitations of claims 4-6 which require the content of the branched amino acids to be equal or more than 30 w/w% on the basis of a content of total amino acids

(see e.g., page 4, lines 7-12; page 5, lies 10-15; and page 8, lines 3-10). Similarly, the reference of Ohashi et al., teaches the use of elemental diets for liver diseases which contains nutritional compositions of various amino acids in molar percentages, wherein the amino acid content in the composition is 10-20 % by weight or so. Thus, the secondary reference of Ohashi et al. clearly discloses mole percentages of various amino acids composition in a form of diet formulation wherein the formulation comprises an amino acid content from about 10% to 20% by weight (See e.g., col. 2 and claims 1 and 2) as directed to claims 4-6. Therefore, in view of the above and in view of the combined teachings of the prior art, one of ordinary skill in the art would easily adjust the content ratio (w/w %) of any amino acid of interest according to the required percentages.

Applicant asserts that even if the culture medium disclosed in EP '233 was modified to include a plurality of amino acids containing a specified amount of branched amino acids, an albumin preparation in a form suitable for administration to a patient would not be obtained is unpersuasive. Contrary to Applicant's assertion, the instantly claimed invention as currently drafted except for claim 7 is directed to a composition comprising the same components as listed in EP '233 patent (i.e., namely, albumin, a plurality of amino acids containing branched amino acids and water with the concentrations of albumin and amino acids which overlap with the claimed concentrations). Thus, regardless of its intended use, the instantly claimed composition and the EP '233 patent composition are substantially the same for the reasons discussed above, and as such, the intended use of a form suitable for administration in a composition claims is given little weight in distinguishing over the prior art.

ACTION IS FINAL, NECESSITATED BY AMENDMENT

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

CONCLUSION AND FUTURE CORRESPONDENCE

5. No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdel A. Mohamed whose telephone number is (571) 272-0955. The examiner can normally be reached on Monday through Friday from 7:30 a.m. to 5:00 p.m. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Low, can be reached on (571) 272-0951. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for regular communications and (703) 305-7401 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1600.

Christopher S. F. Low
CHRISTOPHER S. F. LOW
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600

Mohamed/AAM

March 29, 2004